

CROSSFEED

Maintenance Officer

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Maintenance Management

IMRL 101

By ADCS(AW) Michael Tate

Many individual material-readiness-list (IMRL) managers or petty officers just seem to land in the job. Some have completed the course, but so much information is coming at them so fast it doesn't stick. Other people come to work one day, and they're handed the job. It's easy to see how overwhelming this task can seem, and the program suffers until these people become familiar with it.

Fortunately, two instructions exist that will help the cause: COMNAVAIRFORINST 13650.3 and the NAMP, Volume V. You might have to blow the dust off both, but do it. I will share information with you to make your programs better.

What magic formula exists to beat this beast? Nothing but hard work and the references provided. Too often, people who are given a position of authority won't ask for help or admit they don't know an answer. We want to be viewed as a "go to" Sailor who always has the right answer. You have to get past this point. Asking for help doesn't mean you don't know your job. This new position is unfamiliar and not something learned in school.

IMRL is critical to our operational readiness. Only limited assets exist for each TMS aircraft, and they must be accounted for and taken care of. Seek out others who have figured out the program. Yes, you might have to hunt around a little. But the 13650.3 (enclosure 19) provides a list of people who can help—including the support-equipment controlling authority (SECA). Another person to ask, for most squadrons, likely is your wing IMRL manager. Most wings are proactive and actually are doing some of the daily management for you in the local asset management system (LAMS).

A key issue is making sure your "main body" is not more than 18 months old. Possibly, it could be less than the 12-to-18 month timeframe if you've had a lot of activity, like transitioning to a new aircraft, series changes, or had a major change in SE requirements. If you need a copy of your main body, ask the SECA to provide it. When you get it, check the date because supplements may exist. For example, it's November and the date on the main body is May. You should have supplements for June, July, August, September, and October. If they are missing, contact the SECA again.

Looking at the main body, you may notice numerous pencil marks (a best practice), providing it has been used or updated regularly. These marks will reflect the changes transferred from the supplements to the main body. This list is your master document and always should be up to date. If it does not contain these changes, then you should work the supplements into the main body—one month at a time and in order (June, July, August, etc).

IMRL gear is moved in and out of a command with transaction reports (T/Rs)—a checklist is available in the NAMP (Volume V, Chapter 19.2b(1) and (5), Figures 18-1 and 18-2). It should be used for all gear coming in or leaving a command (deletes in some cases are done as a best practice, when transferring the item, even if it is to DRMO). This step should be done for all gains and prime adds. The checklist should be routed in the order listed on the form, starting with QA and indicating the applicable manuals for the gear and what periodic maintenance shall be done. If this step is missed, then it indicates that your SE planned-maintenance

system needs to be repaired. The IMRL manager plays a key role in SE/PMS, too. For prime deletes, the checklist serves as a tool to make sure the work center (via QA) responds, stating they do or do not still need the item. If needed, the item can be transferred to the special tool side of the tool room. If not, then the PM record, along with the gear, can be pulled to await disposition.

When IMRL gear moves into or out of the work center and tool room, the LAMS report also must be updated to make sure you know where the gear is located. LAMS has two great management tools: barcodes and item pictures. No one can remember what every IMRL item looks like, and the slang terms that are used make it hard, too. A picture speaks a thousand words, so a best practice is to have photos of every item in the database.

Work-center IMRL petty officers and NCOs should be able to complete a quick quarterly inventory. They also should make sure the annual inventory is available in the shop, along with their quarterly inventory, which acts as their working copy. If an item has moved to a different shelf or box in the work center, the shop must tell the IMRL manager to make sure the appropriate change is made to LAMS, using the "location" and "local use" fields.

They need to make sure items are in working (RFI/RFU) condition. If not, they need to be reported to the IMRL manager immediately, using one of the "F" codes found in the 13650.3, enclosure 16, paragraph 3. If an item is in "F" condition, the command must see if they can fix it, or they must start replacement procedures. If that item is source codes (SM&R) "M" or "A," they shall be manufactured or assembled locally. Drawings can be obtained from NATEC (see the procedure in enclosure 9, paragraph 5). The command needs to take whatever action is necessary to fix or replace these items. The IMRL manager must track these items to make sure they aren't sitting idle on a shelf.

While working the main body and LAMS, you'll find a little redundancy, but that result is normal. Using the information I've provided will eliminate 90 percent of the problems the fleet faces. Remember to keep the main body up to date, using the supplements. Put the locations in LAMS, and never put the gear in service without routing the acceptance or transfer checklist. Do the basic steps shown, and you'll be on the right path for IMRL and operational excellence.

Senior Chief Tate is a maintenance analyst at the Naval Safety Center.

Quality Assurance

Do You Know Where HMRs Are Supposed To Go?

By ATC(AW/SW) Danny Williams

According to the NAMP (Volume I, paragraph 14.8.2.c), QA is required to collect and provide maintenance and material data necessary to the safety officer for reporting via OPNAVINST 3750.5, when a report is required.

The safety officer is the expert on deciding when a hazrep should be submitted. If QA is not sending data to the safety officer when they submit an HMR, how does a squadron know they also may need to submit a hazrep?

The Naval Safety Center surveyed 72 commands around the fleet and asked the question, "Is the safety department informed when maintenance

submits an HMR?" Only 51 percent of the safety officers said they were being informed.

When an HMR is required, a hazrep often is needed, too. If we don't pass along this information, then the Navy is losing valuable data. The information from a hazrep could keep other commands in a community from making the same mistakes. Analysis of this information can save lives and reduce mishaps.

We need to help each other to get out this critical information and to comply with the NAMP. It could make a world of difference.

Chief Williams is a maintenance analyst at the Naval Safety Center.

Joint-Services-Wiring Action Group (JSWAG) Addresses Fleet Issues

By CWO4 Ron Stebbins

The JSWAG and Joint Fiber-Optics Working Group (JFOWG) are collecting fleet wiring and fiber-optic issues and addressing them through program and logistics managers at the Naval Air Systems Command.

JSWAG has identified the leading causes of wire failures: exposed conductors, arcing damage, improper repairs, and chaffing. To enhance fleet readiness, the wiring manual was updated in a joint format. The Navy's update is NAVAIR 01-1A-505-1, and NATEC issued change No. 1 in November 2006.

Other updates: The Navy has developed computer-based training for wiring repair through a NAVAIR 6.7.5.2 fleet-training initiative. As the less reliable thermal circuit breakers are being phased out, the JSWAG is continuing the arc-fault circuit-breaker updates on C-9, H-53 and FA-18s. Aging wire studies are being done on P-3, H-1, and E-6s, using reliability-centered-maintenance (RCM) analysis to minimize wiring failure costs. NAVAIR's support-equipment team (PMA-260) has been busy developing a new automatic-wire test set

(AWTS) for I-level maintenance, and a fiber-optic test set (FOST). These new or updated tools should enhance repairs and reduce failures at repair sites.

As more aircraft and systems are updated with the latest fiber-optic technology, the JFOWG recognizes cabling failures will begin to increase. They are preparing for this eventuality and are pursuing enhanced repair methods. To that end, they are doing thorough reviews of fiber-optic issues with the FA-18, F-35 and C-130s. For more information on wiring issues, contact the following personnel:

Jerome Collins
NAVAIR 4.4.5.3, JSWAG Co-Chair
jerome.Collins@navy.mil
(301)342-0812

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Warrant Officer Stebbins is the avionics division head at the Naval Safety Center.

Batteries, Batteries and More Batteries

By ATC(AW/SW) Danny Williams

Who's in charge of batteries for the entire squadron? The answer is the avionics battery-program manager...of course. It's amazing how many people in the fleet don't know that fact.

Who uses the batteries? Where are they stored? Where and how are they disposed of? These questions begin to show the scope of that person's responsibilities.

How many different kinds of batteries exist? The most common ones, in no particular order, are lithium, ni-cad, lead-acid, nickel-metal hydride, and alkaline. It's important to know this information because storage requirements are different for each one.

Lithium batteries may not be stored in a manned space because they can vent toxic fumes. They also cannot be stored with other types of batteries. Lead-acid may be stored in a work center for no more than 24 hours. Unless in California, alkaline batteries have no real requirements for storage or disposal. Storage requirements for batteries, other than lithium, are found in NAVAIR 17-15BAD-1.

Lithium batteries are a mainstay in survival equipment because of their large power capacity and long life. However, they are volatile and have special instructions for handling, storage, use, and disposal. Those requirements can be found in NAVSEA S9310-AQ-SAF-010. If you haven't seen

that pub, save yourself future headaches and find, read, and live it!

Few squadrons store batteries correctly, and even fewer commands have correct procedures in place to handle a battery spill. Every squadron is required to have a spill kit, and it must be set up in an accessible space that contains premixed neutralizers for lead-acid and ni-cad spills.

These problems are just a few that I've seen in my short time at the Naval Safety Center. I'll continue to share my findings in future articles and offer solutions to help.

Chief Williams is a maintenance analyst at the Naval Safety Center.

Tools

Clear Case for Clear Grease Guns

By ASCS(AW) Phil LeCroy

Have you ever walked out to a job site to grease a piece of support equipment or an aircraft and discover the gun had the wrong type of grease, or the secondary warning label had fallen off again? What about the antique grease gun the tool room issued that doesn't work for various reasons? Or the command with only two of them, one checked out to Smith and the other one to Jones who just drove over it on a tractor, ending its life? Being a hard charger can be frustrating at times.

These problems soon will be solved with an innovative new grease gun. And although we don't endorse specific products or manufacturers at the Naval Safety Center, we do want to make the fleet aware of any new product with significant safety features or that will save money over time. We have found a new, clear grease gun that appears superior in every way to the metal ones found around the fleet.

These new grease guns were designed to fulfill the needs of the military. Clear Grease Guns, Inc. and Lincoln Industrial Corporation have developed this new product that is made of a high-strength, resilient polycarbonate, with aircraft aluminum end caps. They are produced with "memory" that snaps back to the original shape after being compressed.

The clear design is important because high-tech machines can be lubricated with the wrong grease, requiring costly tear down to flush bearings and joints. We already have too much work to do without adding



A three-ton truck can't crush it.



It survives with only a scratch.

unscheduled, self-inflicted work. The new product allows the user to see the type of grease being used, check the quantity remaining, and can be used with bulk grease or a cartridge. The gun also has a filler and bleed valve for clean filling or purging trapped air pockets. It also comes with a rigid tube and high-pressure flexible hose.

We tried to test the “memory” feature of the grease gun at the Naval Safety Center, but it defied all attempts to compress the polycarbonate. We struck it against a large metal object, put it in a vise, and parked a three-ton truck on top of it. These tests would have destroyed a metal gun, but we only could scuff it. The product is durable and should stand up to anything an overeager maintainer can dish out. This tool has been tested in the fleet, too. Here are some of the positive feedback reports that have been received on its ease of use and durability.

“My opinion on the grease gun you showed me a few weeks ago is that it is a superior alternative to our current equipment. The quality is 10 fold what we currently use. In addition, the available options offered will increase productivity and safety,” said a maintainer from HMM(T)-164.

Another mechanic said, “I believe that this grease gun is the way of the future for Marine and naval aviation. I wish that we had had these when I was a young flight-line mechanic. Just the safety aspects of the grease gun far surpass any other.”

Others echoed this theme, “Recommend making this grease gun the new standard-issue equipment. Very impressed.”

The clear grease guns soon will be available in the supply system (under “Transparent grease gun”).

Senior Chief LeCroy is a maintenance analyst at the Naval Safety Center.

Class C Mishap Summary

By ADCS(AW) Michael Tate

From Dec. 15, 2006, to Feb. 14, 2007, the Navy and Marine Corps had 13 Class C mishaps involving 13 aircraft. These mishaps are all under investigation, so specific reports can’t be discussed.

A trend in this quarter’s mishaps could be identified: lack of attention while handling and moving aircraft and removing components. A common problem is not ensuring enough clearance exists when accomplishing these tasks. We end up with dinged, bent, dented, and smashed aircraft, equipment and people.

How many times have you walked past an aircraft and have seen someone removing a component without a lifting adapter, when you know one is required? In the past, that job might have been completed successfully using a shortcut—maybe even faster than with the right equipment. That success is a problem because a culture and norm gets established. All of a sudden, it’s OK to do it that way, even though it’s not “by the book.”

That method depends on luck, and someday that luck will run out. When it does, we have an injury, damaged equipment, or an aircraft loss.

When maintainers make those poor decisions, manuals get “written in blood.”

Aircraft moves are done correctly 80 percent of the time. Unfortunately, 20 percent of the time our people ignore infractions and don’t stop the move. We see people moving aircraft without whistles in mouth, wing walkers talking about any subject but the move, or people just staring at the deck, rather than being alert and taking care of the move. Tow-tractor drivers aren’t paying attention to the director, and directors accept it. Or worse, our senior petty officers walk past and don’t challenge these bad maintenance practices.

The fixes to these problems are simple and can be found in the core values of the Navy and Marine Corps: honor, courage and commitment. Leaders must lead, supervisors must supervise, and workers must do good, safe work. Honor implies you value the safety of people and equipment. You must have the courage to confront those people or situations who threaten safety. And you must have the commitment to do the best job possible, preventing bad maintenance practices from becoming the norm.

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